

November 12, 2004

City of Long Beach
Department of Public Works
333 West Ocean Boulevard, 9th Floor
Long Beach, CA 90802

Attn: Mr. Tom Leary, Stormwater Program Officer

Subject: Deliverable for Task 10, Finalize Restoration Alternatives – Meeting Minutes and List of Preferred Alternatives – Colorado Lagoon Restoration Feasibility Study

Dear Mr. Leary:

This memo report provides the “Comments from CLAG and Community Stakeholder Meetings” and “List of Preferred Alternatives” deliverables for the Colorado Lagoon Restoration Feasibility Study. This deliverable is part of Task 10 (Finalize Restoration Alternatives).

Introduction

Colorado Lagoon is a tidal lagoon in the City of Long Beach and is connected to Alamitos Bay and the Pacific Ocean through a tidal culvert to Marine Stadium. The goal of the Colorado Lagoon Restoration Feasibility Study is to evaluate and recommend feasible alternatives to restore the marine ecosystem and support safe recreation while improving water and sediment quality and managing storm water in Colorado Lagoon.

The total set of alternatives was developed and assessed as part of the previous Task 9 – reference the “Development and Evaluation of Restoration Alternatives” deliverable. That report assesses each alternative component for hydrologic regime, flood control impacts, environmental benefits and impacts, habitat changes, maintenance requirements, and estimated costs. That information was presented to the Technical Advisory Committee (TAC), Colorado Lagoon Advisory Group (CLAG) and public stakeholders on October 28th 2004 (meeting minutes in following sections of this memorandum). Based on feedback from the meeting, certain alternatives were dropped from the list based on technical feasibility and the groups’ identified preferences. The remaining alternatives form the basis of the “preferred alternatives list”. The alternatives have been identified as individual components so as to be able to select individual components and phase and prioritize them for incremental funding. Implementing all of the components would define the maximum project alternative, or the “Master Plan”.

The purpose of this report is to provide the list of preferred restoration alternatives. These preferred alternatives will then be compared and ranked for achieving project goals and for cost, as part of the Task 11 (“Prepare Conceptual Restoration Plan (final report)”) deliverable.

TAC Meeting Comments Summary

The Colorado Lagoon Technical Advisory Committee (TAC) met on October 28th, 2004. The purpose of the meeting was to report analyses of alternatives, solicit input on the ranking of alternative actions, and discuss TAC comments received previously. A summary of the meeting comments is provided as Attachment A.

CLAG/Stakeholder Meeting Comments Summary

The Colorado Lagoon Advisory Group (CLAG) and public stakeholders met on October 28th, 2004, immediately following the TAC meeting. The purpose of the meeting was to report analyses of alternatives and solicit input on the ranking of alternative actions. A summary of the meeting comments is provided as Attachment B.

List of Preferred Alternatives

Based on feedback from the above meetings, seven alternative components were removed from the overall list. The alternative components that were removed are:

- 1b. Build open channel and discontinue use of existing culvert.
 - There were no substantive benefits or cost savings of this alternative versus 1c which is the alternative to build an open channel and utilize the existing culvert. The TAC and public concurred with this.
- 5c. This option involved re-grading the slopes for the eastern shore area immediately adjacent to the culvert; this would impact the current grassy park area.
 - The public said that this park gets a lot of use and they do not want it impacted.
- 8. Installation of eelgrass into the lagoon.
 - Upon further consideration, the biologist does not think that this is necessary. The existing eelgrass patches will expand on their own as the water quality improves. There was no TAC or public objection to remove this alternative.
- 14a. Install full perimeter trail.
 - This perimeter trail would have an impact to restored habitat areas. There are other ways to provide public access (e.g. viewing platforms, telescopes). A full perimeter trail is not desired.
- 16. Bird management.
 - Bird overpopulation does not appear to be a current problem. If birds do become a problem, this alternative can be resurrected. In the meantime, stakeholders such as FOCL say that they can help the City manage this issue.

- 17c. Discontinue all sand nourishment.
 - Even though there is a concern about the sand nourishment impact to the lagoon, it was recognized that sand nourishment is needed in the swimming area. The alternative to modify sand nourishment practices is still on the preferred alternatives list.
- 18. Watershed impacts educational display.
 - This alternative is already being pursued separately as part of the Marine Science Education Center project.

The list of remaining alternative components to be addressed in the final feasibility report is provided in Attachment C.

Conclusion / Next Steps

The preferred alternatives have been deemed technically feasible by the TAC, endorsed by the public stakeholders, and meet the project goal and objectives. These preferred alternatives will be compared and ranked for achieving project goals and for cost, as part of the Task 11 ("Prepare Conceptual Restoration Plan (final report)") deliverable.

Attached herein are the invoices (one original and one copy of each) for this deliverable (Task 10) and for completion of the third public meeting (Task 13).

Thank you for the opportunity to work on this important project. Please contact Kim Garvey or me at 562-426-9551 with any questions or comments.

Sincerely,

MOFFATT & NICHOL

Chris Webb
Project Manager

Enclosures

ATTACHMENT A

Comments / Questions from October 28th 2004 TAC Meeting for Colorado Lagoon Restoration Feasibility Study

Comments/Questions re Open Channel Alternative

- Comment: need to make open channel attractive – need attractive “nuisance” fence and should landscape along the banks.
- Can the open channel be made wider to reduce velocities and thus eliminate the need for a fence?
- Is there a scour issue / impact from the open channel discharge into the Marine Stadium mitigation area eelgrass?
- Comment: \$2 million for two bridges seems cheap.

Comments/Questions re. BMPs

- Comment: why waste money studying whether or not the golf course contributes pollutants to the lagoon. Instead, just use the money for golf course BMP improvements, such as installing over-watering shut-off devices.
- What is the golf course currently doing regarding over-watering control? What BMPs are already in place at the golf course?
- Comment: there is potential funding available through MWD (?) for doing some of these type of BMP initiatives (e.g. over-watering control devices).
- Comment: money will need to be put aside to further study what BMPs provide the greatest benefit and which ones should be targeted for implementation. There is a need to create a BMP master plan.
- Comment: FOCL’s watershed expert consultant says that watershed education is important and applaudable, but really need to do more to treat/control watershed pollutant sources.

Comments/Questions re Recent Storm and Trash Problem

- Photographs of trash and sediment in lagoon from recent storms provided by Dave Pirazzi of FOCL.
- Comment: need to address sand erosion problem caused by stormwater runoff from parking strip along Appian Way into north shore beach area by lifeguard station. (Photographs from recent storm provided by Dave Pirazzi of FOCL).
 - Comment: should look at replacing this asphalt parking strip (by the lifeguard station) with permeable pavement.
- Comment: there were minor flood overages at the lagoon during the recent storms.
- Can CDS units treat stormwater first flush?
- Comment: CDS units installed in other parts of the City worked well during the recent storm events – trapped lots of trash.
- Would trash/debris boom be needed if CDS units are installed?
- Comment: need to consider aesthetics of the trash/debris boom – we will get people who object to it because of the aesthetic impact (similar to the objections received for the previously proposed on-surface recirculators).

- Comment: FOCL held major clean-up event at the lagoon last weekend – picked up a lot of trash. First flush and first storms of the season are definitely a problem.

Comments re Alternatives Preferences

- Can take out bird management alternative component. FOCL can work on that problem themselves.
- Can take out watershed educational display – this is already being pursued as part of the Marine Science Education Center.
- Re perimeter trail alternative: entire perimeter trail is too big of an impact to habitat. Would rather see a limited trail.
- The open channel (plus existing culvert) should be the number one priority.
- Removing the contaminated sediment in the western arm is a priority.
- Removing sediment from the western arm would be a waste if the open channel is not implemented first.
- It is important to do upstream watershed initiatives, should continue to do these.
- Need to consider that if the big ticket (\$) components are funded first, then there probably won't be money available to do other things. Funding agencies look at funding by area and if they see that a certain area has already received a large amount of funding, they will not provide further funding.

Other Comments/Questions

- Question re the alternative to improve the sandy intertidal habitat on the north shore: could the cost of this alternative be paid for (offset) by the savings of the City not having to do sand nourishment there?
- What are the sources of sediment coming into the lagoon and how much comes from each source?
- Comment re the alternative to install a sediment trap in the western arm: would this sediment basin impact the re-establishment of benthic organisms there?
- Question re alternative to create bird island on north shore beach: have we taken into account the crow predator problem brought up at the last meeting?
- Comment: most citizens would probably like to see the foot bridge connection retained, i.e. not cut off at the north shore.
- Comment: need to re-look at storm drain sewer diversion costs - \$1.3M seems low.
- What is the plan to talk to the golf course about potential feasibility of proposed alternative components that affect the golf course? Will this be done prior to submittal of the final report? If the City owns the golf course, how come they can't be more assertive and tell American Gold (golf course operators) to do what needs to be done.
- City comment: need to have something more definitive to provide to the golf course before these discussions can begin. Need to spend time and energy on what the citizens want.

ATTACHMENT B

Comments / Questions from October 28th 2004 CLAG/Stakeholders Meeting for Colorado Lagoon Restoration Feasibility Study

Comments/Questions re Open Channel Alternative

- Does the open channel's sharp turn across Eliot Street significantly add to the cost?
- How much cost savings is there for a straight channel (direct route through park)?
- What is the impact to the sports fields at Marina Vista Park? What will be done to replace them?
- Would the open channel have to be fenced?
- Is there anything we can do to not need a fence along the open channel? The local community won't like a fenced channel going through the park.

Comments/Questions re. Sediment Removal Alternatives

- Do we know what percent of the sediment comes from the storm drains versus the beach sand nourishment?
- How is sediment going to be removed from the west arm?
- Would new sediment need to be imported to fill in the bottom after excavation of contaminated sediments in the west arm?
- How long will it take to remove the sediment?
- How long does it take for the sediment to dry?
- Is it better to dredge first before the open channel is done? Is there a preferred order of these alternatives?
- Comment: would like us to do all the sediment removal / grading at the same time so as to minimize the impact on the critters.

Comments/Questions re Storm Drains

- Did we do sediment quality testing of the storm drain that discharges directly into the swimming area?
- What about the previously suggested alternative to tie in the swim area storm drain into the TADP drain line into Marine Stadium?
- Have we considered bio-swales for storm drain treatment?
- Comment: understand that there is a water quality improvement with the open channel, but then what is the water quality impact from the storm drains if nothing is done with them?
- Do storm drain changes need to be implemented first (for water quality improvement) before any habitat changes made?
 - Comment: need to improve water quality before habitat changes are made.

Comments re Alternatives Preferences

- Habitat is really important. Flattening the slopes would be good.
- Comment re the alternative to recontour the slopes on the east shore directly adjacent to the culvert: this park gets a lot of use. Would rather see more habitat area at the western tip.

- Open channel plus existing culvert (1c) and removing western arm sediment (2) are equally important alternatives.
 - Caveat re preference for open channel: must be naturalized channel.
- Next priority (after open channel and sediment removal) would be to treat the storm drains, bio-swales, etc. for water quality improvement.
- Next priority would be habitat improvement.

Comments/Questions re Future Funding / Future Implementation

- How does funding look for the future?
- Has the City checked with the Ports regarding potential mitigation funding available?
- Comment: even though the Coastal Conservancy funded 100% of this feasibility study, it is highly unlikely that they would fund 100% of the implementation. The Coastal Conservancy is looking for the City to match the CC funds. Information on funding guidelines and potential funding sources was provided to the City.
- City comment: want to have solid report and good understanding of what the citizens want before the City will go forward for funding. City and stakeholders are to collectively pursue funding.
- Comment: Prop 50 is a potential funding source, (although it has some “glitches”).
- How is the City going to implement the study findings? How is the implementation project going to get done?

Other Comments/Questions

- How many schools are in the lagoon’s watershed area? Schools are important for watershed impacts education. Is there an environmental education program like have in Colorado?
 - Comment: Yes, California does require environmental education for grades K-12.
- Comment re north shore island alternative: going to have teenagers swimming to that island. Why not put the island somewhere else?
- Comment: if the western arm eastern shore vegetation area is expanded into golf course, then definitely will have to eliminate 7th hole long tee because most golfers will not be able to clear this area.
- Comment: saw noticeable impacts to number of birds before and after City’s sand nourishment activity. Before sand fill, there were a lot of foraging birds. After, most of the birds were gone.
- Did we look at replacing the old section of the existing culvert?
- What is the benefit / difference of removing one foot of sediment on the bottom of the culvert? How much does this help?
- Comment: would like to hear from M&N on what components do the most to improve water quality.

Tom Leary pointed everyone to the City’s website. Comments on this meeting’s information are due within one week (~11/5). When the alternatives report is posted, the public will then have two weeks to make comments. The final report is to be submitted to the City at the end of December. Chris Webb provided his email address and phone number for people to submit comments.

ATTACHMENT C

Preferred Alternative Components - Colorado Lagoon Restoration Feasibility Study

- 1a. Clean culvert, fix tidal gates, and remove sills / structural impedances.
or
- 1c. Utilize existing culvert and build open channel between the lagoon and Marine Stadium.
2. Remove contaminated sediment in the western arm via excavation by berming off the western end.
3. Remove contaminated sediment in the central lagoon via excavation and recontour the central lagoon bed.
4. Implement watershed BMPs:
 - i) Increase enforcement at construction sites – improve upstream watershed sediment capture.
 - ii) Increase education/enforcement at commercial areas – especially related to parking area wash-downs.
 - iii) Reduce lawn over-watering – residences, commercial areas and golf course.
 - iv) Implement pesticide/herbicide management plan at golf course.
 - v) Increase/improve City street sweeping.
- 5a. Remove exotic vegetation and install native vegetation, with no slope recontouring, for the following areas.
 - i) Western tip of west arm - remove exotic vegetation (grass) and install native vegetation.
 - ii) Eastern shore of west arm - remove exotic vegetation (shrubbery) and install native vegetation.
 - iii) Northern tip of north arm - remove exotic vegetation (portion of grass) and install native vegetation. Minimize amount of grassy lawn space impacted.
 - iv) Eastern shore - remove exotic vegetation (iceplant) and install native vegetation buffer.
 - v) Southern shore – install low shrubs between concrete path and sand (near playground) and along Appian Way parallel parking strip (near lifeguard station)*or*
- 5b. Recontour side slopes and create mudflat intertidal habitat along entire eastern shore, western shore of north arm, and along western arm, and do all of 5a above.
6. Create/improve sandy intertidal habitat along southern shore of west arm.

7a. Install vegetated swale and buffer zone along golf course fenceline (without moving fence).

or

7b. Move golf course fenceline and install vegetated swale and (wider) buffer zone along fenceline

or

7c. Move golf course fenceline, move/narrow access road and north shore parking lot (and use permeable pavement), and create upland zone along western shore of north arm, swale along northern shore golf course fenceline, and bermed sandy intertidal zone along northern shore,

or

7d. Move golf course fenceline, move/narrow access road and north shore parking lot (and use permeable pavement), and create upland zone along western shore of north arm, swale along northern shore golf course fenceline, and bird island out of new sandy intertidal area, via swale channel, along northern shore.

9. Construct berm to protect from flooding near Elliot/Colorado St corner.

10. Install sediment trap basin for western arm (and other?) storm drains.

11. Install treatment bio-swale outlets for the local hard drains into the lagoon.

12. Construct low flow and first flush diversions to sanitary sewer for selected storm drains.

13a. Eliminate golf course 7th hole long tee

14b. Install limited perimeter trail, viewing platforms /overlooks and telescopes, with interpretative kiosks.

15. Implement/improve trash management protocols.

17a. Continue existing sand nourishment practices

or

17b. Modify sand nourishment practices